

June 1, 2017
File: PG1887-LET.02 Revision 1

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Attention: **Mr. Adam Thompson**

Subject: **Addendum to Slope Stability Analysis**
2175 Prince of Wales Drive
Ottawa, Ontario

www.patersongroup.ca

Dear Sir,

Further to your request, Paterson Group (Paterson) has prepared the current addendum report to provide an updated review of the limit of hazard lands established as part of our original slope stability analysis presented in Paterson Report PG1887-LET.01R dated April 20, 2010.

1.0 Current Slope Conditions Review

A cursory review of the existing slope conditions along the subject section of Rideau River and watercourse tributary to the east of the subject site was completed on April 17, 2017.

At that time, several areas along the watercourse tributary to the east of the site exhibited signs of active erosion. The stormwater outlet pipe at the Prince of Wales Drive crossing was noted to be severely undermined and remedial work is recommended to limit further erosion action along the roadway embankment. Several sections of the tributary valley wall were noted to have minor slip failures due to the active erosion. However, the overall slope face and top of slope have not been significantly altered since our original review in 2010. Photographs of the current slope conditions are attached to the present letter report.

The riverbank and valley corridor wall along the Rideau River adjacent to the subject site is relatively unchanged since our original review in 2010. A recent large slope failure within the City of Ottawa Right-of-Way was noted along the Rideau River to the southwest of the subject site. A slope stability section based on our cursory review of the existing slope conditions was analyzed by Paterson (Section C). The cross-section location is presented in Drawing PG1887-2 - Site Plan attached.

Based on our analysis, a setback from the top of the existing slope (stable slope allowance) is required in the area of the observed slope failure. However, the stable slope allowance recommended at Section C is still in compliance with our previous stable slope allowance for the area. The results of our analysis are presented in Figures 1 and 2 attached. **It should be noted that the limit of hazard lands line established by Paterson in 2010 does not have to be altered due to the slope failure observed in the City of Ottawa Right-of-Way. It should be further noted that our slope stability analysis and limit of hazard lands designation presented in our 2010 report adequately represent the current slope conditions for the subject site based on our analysis and site review.**

2.0 Neighbouring Slope Remedial Repairs

The observed slope failure which is located along the slope face within the City easement, which abuts the Rideau River to the southwest of the subject site. The approximate failure area is presented in Drawing PG1887-2 - Site Plan attached. General details for a remedial slope repair program are presented below.

- A legal surveyor should provide topographic information along current top of slope and along toe of the failure area, where access is possible.
- Failed slope material should be removed and a remedial slope program should be designed by a geotechnical consultant to re-establish the original top of slope along the impacted area and provide a stable slope.
- The slope toe should be protected against further toe erosion activities.

We trust that this letter satisfies your requirements.

Sincerely,

Paterson Group Inc.



Richard Groniger, C. Tech.



David J. Gilbert, P.Eng.

Attachments:

- Site Photos
- Figures 1 and 2 - Slope Stability Results
- Drawing PG1887-2 - Site Plan

Photographs from Site Visit – April 17, 2017

Photo 1: Significant erosion below stormwater outlet structure adjacent to Prince of Wales Drive.



Photo 2: Existing slope conditions along slope located to the southwest of the subject site. Recent slip failure has occurred and left steep backscarp.

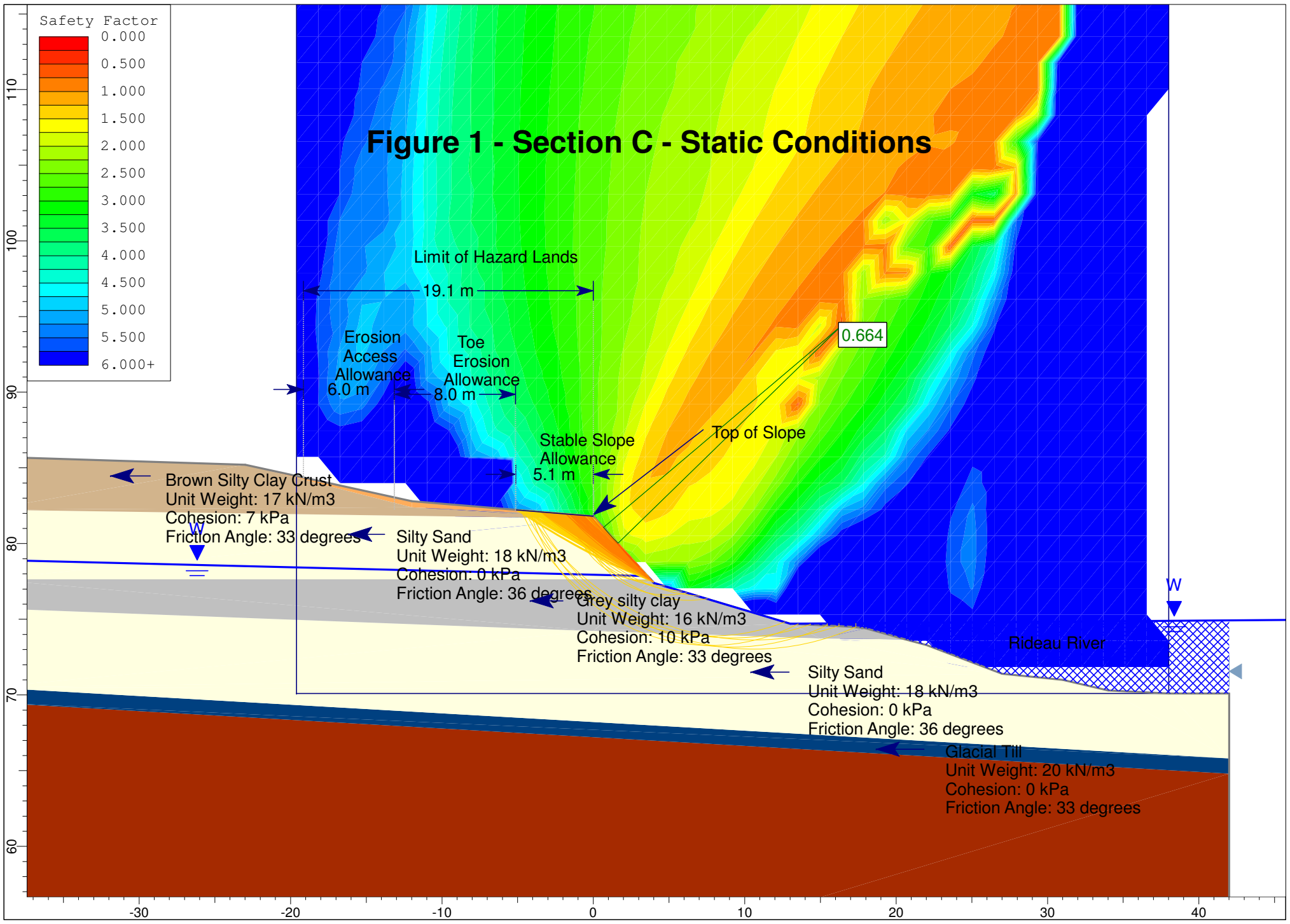


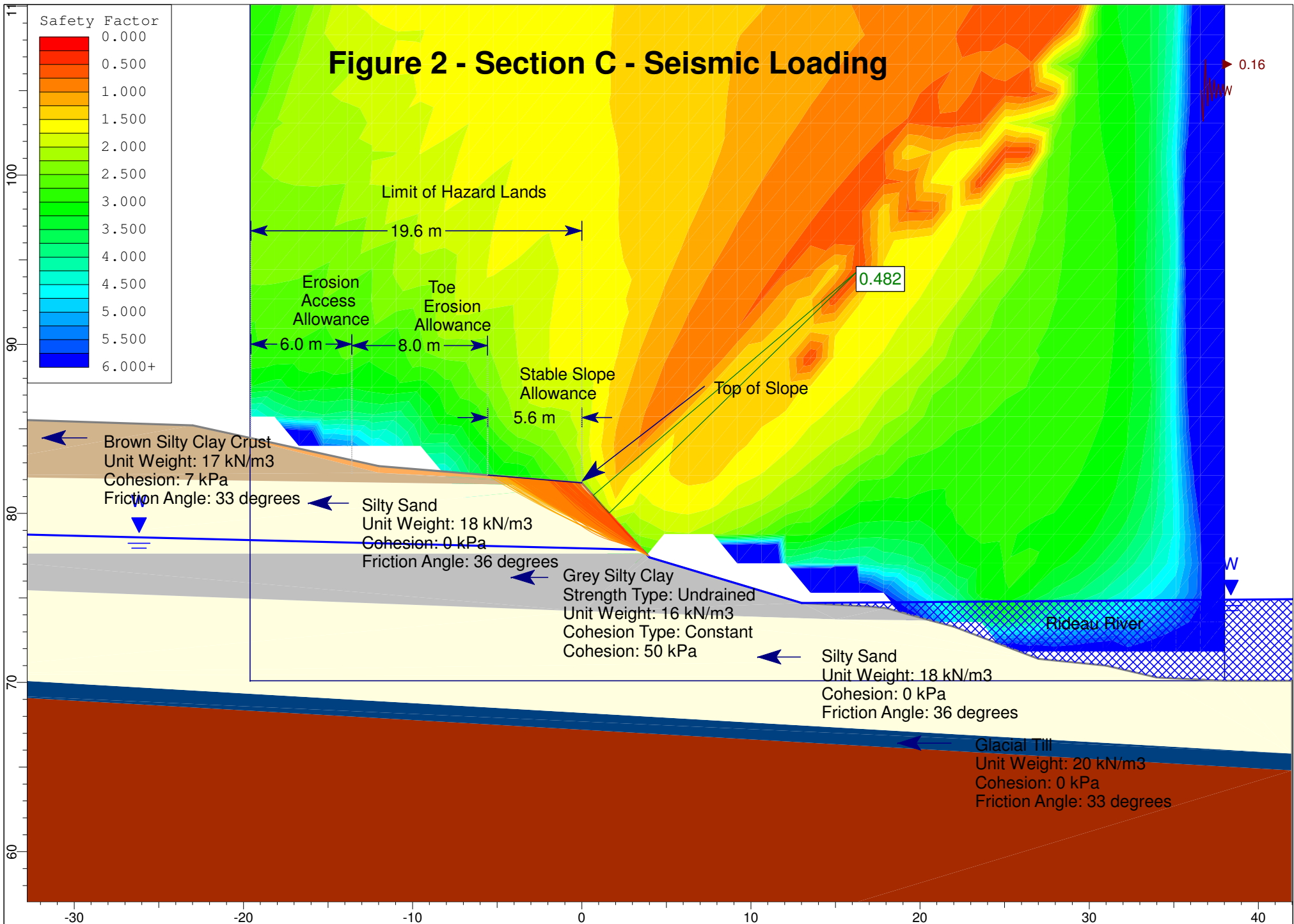
Photographs from Site Visit – April 17, 2017

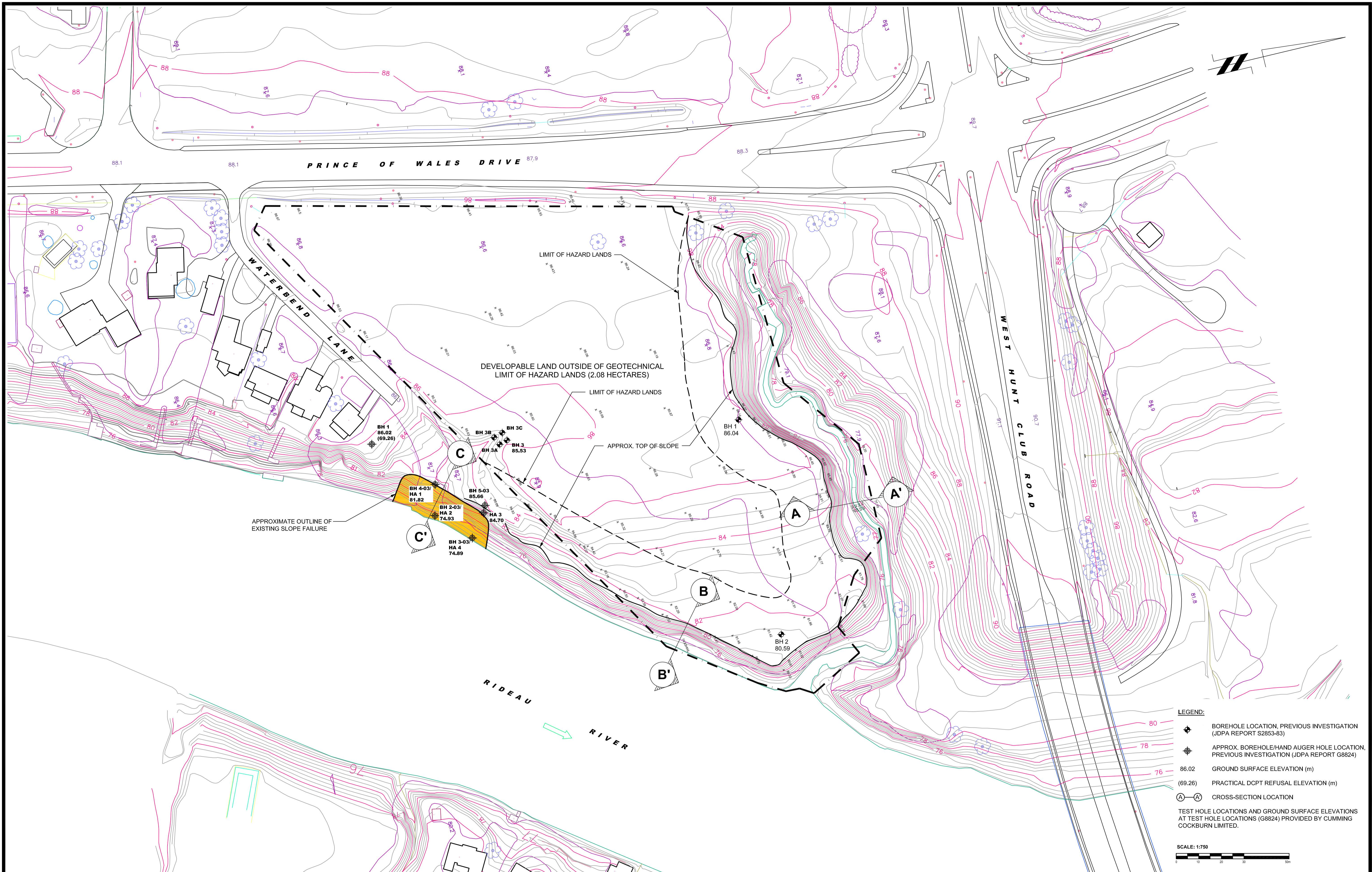
Photo 3: Slope toe in failure area along Rideau River at same location as noted in Photo 2.



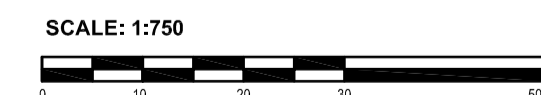
Figure 1 - Section C - Static Conditions







- LEGEND:**
- BOREHOLE LOCATION, PREVIOUS INVESTIGATION (JDKA REPORT S2853-83)
 - APPROX. BOREHOLE/HAND AUGER HOLE LOCATION, PREVIOUS INVESTIGATION (JDKA REPORT G8824)
 - 86.02 GROUND SURFACE ELEVATION (m)
 - (69.26) PRACTICAL DCPT REFUSAL ELEVATION (m)
 - (A-A') CROSS-SECTION LOCATION
- TEST HOLE LOCATIONS AND GROUND SURFACE ELEVATIONS AT TEST HOLE LOCATIONS (G8824) PROVIDED BY CUMMING COCKBURN LIMITED.



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NO.	REVISIONS	DATE	INITIAL
1	SLOPE SECTION "C" AND EXISTING SLOPE FAILURE ADDED	MAY 01 / 2017	DJG

Title:

MR. SCOTT THOMSON
SLOPE STABILITY ANALYSIS
2175 PRINCE OF WALES DRIVE
OTTAWA, ONTARIO

SITE PLAN

Stamp:

Scale:	1:750	Report No.:	PG1887-LET.02
Drawn by:	MPG	Drawing No.:	
Checked by:	RG		
Approved by:	DJG		PG1887-2
Date:	01/2017	Revision No.:	1

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